October 8, 2004

Art Williams, Director
Louisville Metro Air Pollution Control District
850 Barret Ave., Suite 205
Louisville, KY 40204-1745

RE: Draft Air Toxics Regulations - STAR Program
Informal Comment Period
E. I. du Pont de Nemours & Company, Louisville Works

Dear Mr. Williams:

DuPont thanks the Air Pollution Control District for the opportunity to comment on the draft air toxics regulations. We welcome the opportunity to work with the District towards the goal of ensuring a healthful environment.

DuPont, however, has the following major concerns regarding the implementation process and content of the draft regulatory package:

AGGRESSIVE NATURE OF THE PROGRAM

The complexity of the proposed air toxics program warrants careful consideration of the impact of steps taken towards addressing all significant sources for meeting the intended goal. The hurried manner in which the District has pursued these regulations does not lend itself to such a process. The focus of any program should have a clear understanding of the impacts of the program toward the goal. In that regard, DuPont supports the recommendations from GLI to prepare a comprehensive regulatory impact analysis, as required by KRS 77.185(e). DuPont also supports GLI's comment to take the necessary time and energy to engage a stakeholder group to develop regulations that serve the stated objectives without imposing unproductive requirements.

The District has taken an extremely draconian approach to addressing air toxics issues in the Louisville area, and has only focused on a small segment of the air toxic sources. The draft regulations propose a highly conservative methodology for assessing environmental acceptability, includes an inordinately long list of compounds instead of focusing on top tier compounds, and regulates each point source on both an individual chemical and an aggregate basis. To launch such a program holistically may overextend both regulatory and industry resources. As an alternative to the proposed approach, DuPont recommends the District adopt a phased or tiered approach that would establish manageable goals over

a more reasonable time period and adopt regulations that serve those goals. The first tier should focus on a short list of the compounds from the ambient monitoring study (Catergory 1) that were shown to be major contributors to community risk levels. Second phase should focus on any additional chemicals that present a known risk. After two phases have been completed, a study to assess "residual risk" remaining should be conducted to determine the need for additional regulation. The third phase would address remaining risk and compounds associated with it.

THE METHOD

DuPont has concerns about the methodology for determination of environmental acceptability as described in the draft regulations. Specifically, the method is extremely conservative and is presented in a manner that lacks clarity, rendering it difficult for the reader to follow and interpret impacts on their facility.

LAYERS OF CONSERVATISM

The methodology described for assessing the environmental acceptability for toxic contaminants contains too many layers of conservatism for the assessment results to be practical. Examples of conservatism in the assessment process are:

- Choosing to use a risk level of one-in-a-million as a bright line of acceptable risk for carcinogens, and choosing a hazard index of 0.2 for non-carcinogens. Establishing acceptable risk standards at a de minimus level of one-in-a million is a policy decision that bears revisiting. EPA uses a risk range of 1×10^{-4} to 1×10^{-6} in its Benzene NESHAP program, for example, and considers other important factors such as population risk and economic factors to arrive at a level that provides an ample margin of safety for resident while not overburdening industry.
- Multiple uncertainty factors are included in available inhalation health benchmarks that can easily be on the order of 1000 times more stringent to account for uncertainty.
- If inhalation health benchmarks are derived from oral values, additional uncertainty enters the assessment to account for the extrapolation from the oral route to the inhalation route.
- Targeting maximum daily ambient air concentrations and assuming they apply over a lifetime of exposure in lieu of using daily average concentrations over the exposure period.
- Using the maximum modeled value anywhere in the study area in lieu of the value where actual receptors may be exposed.

DuPont recommends the District adopt an acceptable risk range and work with daily average exposure values at locations of actual potential for exposure to create a more reasonable and realistic assessment methodology.

LACK OF CLARITY

The guidance as presented is difficult for the reader to understand. DuPont strongly recommends that the District provide a new version of the draft rules which presents a clearer picture of the process the regulated community is being asked to follow, complete with calculated health benchmarks. Although the District has presented a detailed description of how toxicological benchmarks would be developed, it stops short of actually developing the benchmarks. While the transparency in approach is appreciated, it would be more meaningful to see the values the District envisions applying, rather than just the procedure. It would also be helpful to include one or more sample calculations, to show the regulated community how the procedure would work. Finally, standard forms or templates would serve both industry (especially small businesses) as well as regulatory reviewers in standardized the process to one that is consistent and manageable.

GLI's comments are supported by DuPont and are not, for the most part, repeated here. The District should not misconstrue that the comments that follow address every concern that DuPont may have regarding the draft regulations. The time allowed for the informal comment period was not sufficient for a detailed, in-depth analysis warranted by the scope of the regulations.

Again, DuPont submits these comments to the District in good faith and thanks the District in advance for consideration. Please direct any questions to me at (502) 775-3173 or Cheryl.S.Fisher@usa.dupont.com.

Respectfully submitted,

Cheryl S. Fisher
Area Manager - Environmental

cc: M. N. Sanchez, Plant Manager
Jonathan Trout, LMAPCD Secretary/Treasurer
The Honorable Jerry Abramson, Louisville Metro Mayor
Mr. Bruce Traughber, Cabinet Secretary
Dr. Karen A. Cassidy, APCD Board Chair
Mr. Lewis H. Hammond, APCD Board Member
Mr. Lee Howard, APCD Board Member
Ms. Barbara Sexton Smith, APCD Board Member
Ms. Sandra Withers, APCD Board Member
Dr. Nadir Al-Shami, MD, APCD Board Member
Ms. Carolyn Embry, APCD Board Member

Regulation 1.06 Stationary Source Self Monitoring, Emissions Inventory Development, and Reporting

- DuPont is concerned that the District requires in Section 4 of this draft regulation detailed real time data retroactively where such data collection systems may not currently exist. Any new data collection efforts should be implemented only with proper notification and implementation time. Justification for the additional time, effort, and expense involved in collecting such data should be provided in the aforementioned regulatory impact analysis. *(Section 4)*

Regulation 1.07 Excess Emissions During Startups, Shutdowns, and Malfunctions

- In the definition of "Excess Emissions", the District does not clearly define what constitutes "appreciable increase in the emissions of a toxic air contaminant." This ambiguity welcomes unintended disagreement over the requirements for reporting excess emissions. The definition for "excess emissions" should include only emissions above an applicable emission standard. *(Section 1.2)*
- The immediate notification requirement (within one hour) for unplanned events causing excess emissions should allow the provision that this requirement can be also satisfied with a notification call to 911. This prevents unnecessary duplication during a time when resources are best employed resolving the immediate situation. *(Section 3.3, Section 4.1)*
- The timelines for the initial post-event notification written requirements are unnecessarily short. For most events, an incident investigation is launched as soon as practical to determine root cause and implement measures to prevent reoccurrence. Data gathered during an incident are evaluated for determination of root cause. Providing a meaningful and compliant report to the District may take longer than the "next working day" for some events. DuPont urges the District to change this requirement to five working days. *(Section 3.7, Section 3.8, Section 4.5)*
- A more definitive timeline should be made in Section 4.6. The "end of that day" could be just a few minutes if an event takes place in the late night hours. *(Section 4.6)*

Regulation 1.20 Malfunction Prevention Programs

- The definition of "affected facility" should be clearly defined so that facilities become subject to this requirement only based on pre-established criteria. A metric or benchmark, such as a number of occurrences for a particular source or control device per time period. DuPont suggests that a reasonable #/time criteria for determining applicability be applied only to excess emissions, defined as suggested in comments above for draft Regulation 1.07. *(Section 1.1)*

- Sufficient notice is required for implementation of a malfunction prevention plan, as GLI stated in its comments. The requirements should be stated in the operating permit as district-only enforceable requirement, only by reference. Referencing the plan will allow ease in maintaining an evergreen document. How will the District incorporate these modifications into the Title V operating permits? *(Section 3.3)*

Regulation 1.20 Enhanced Leak Detection and Repair Programs

- DuPont supports the GLI comments on an enhanced leak detection and repair (LDAR) program. An enhanced program should mimic the federal MACT LDAR standards to the greatest extent possible for consistency in complying with monitoring and reporting requirements. Comments beyond the GLI comments follow.
- The definition of "affected facility" includes sources subject to promulgated MACT standards for which a compliance date is in the future. This definition makes these sources almost immediately (as soon as 120 days) subject to requirements for which the facilities may not have yet made preparation (tagging, training, etc.). The source should be subject to these requirements on the same schedule as the MACT standards – CFR Parts 60, 61, and 63. *(Section 1.20)*
- Although usually possible, a first attempt is not always possible within one business day of detecting a leak (may have to construct scaffolding, employ contractors, empty equipment, write lockout plans or procedures, etc.). DuPont urges the District to consider extending this requirement to at least three days. *(Section 4.1)*
- Components of the proposed training program are not outlined. The District should clearly state the training requirements as well as records retention for any training documents. *(Section 6)*
- Per these draft regulations, a leak detection plan is required within 120 days of promulgation of this regulation. This is an onerous requirement that places undue burden on affected sources. The District assumes that the regulated companies have unlimited resources to address manpower-intensive immediate requirements for enhanced emissions inventories, LDAR plans, modeling, etc. The timing to implement all of these requirements simultaneously should be clearly justified by the District in the regulatory impact analysis. *(Sections 13.2, 14.2)*

Regulation 2.08 Emissions Fees, Permit Fees, Permit Renewal Procedures, and Additional Program Fees

- In concert with GLI, DuPont is concerned that the fees have the potential to be significant for the small number of Title V sources in Jefferson County if promulgated as drafted. DuPont urges the District to proactively estimate and disclose expected program fees for the next five years, along with company identification and expected fees for each facility based on previously submitted data to the District. Facilities must be able to anticipate significant fees at least a year in advance to facilitate adequate budgeting. Unless the fee increases will be only

subject to increases in the Consumer Price Index, DuPont suggests that an annual published fee schedule, which includes estimated increases for five years forward, be required in this regulation. This fee schedule would be made available at least 12 months prior to the due date for the set fee and would be updated and made available annually by the District. *(Section 6.3)*

- Permits should not be subject to immediate revocation within 30 days of receiving a fee invoice. For substantial fees, payment may have to be made corporately, which could require additional time. A better approach would be to invoke a late payment penalty, such as 2% per month, for payments received after the due date. Additionally, there could be a cut-off period, say six months, in which permit revocation would occur and an NOV could be issued. Clearly state that the payment must be postmarked or received by the stated due date to avoid confusion. *(Section 6.4)*

Regulation 5.20 Methodology for Determining Benchmark Ambient Concentration of a Toxic Air Contaminant

Section 2: Determination that a TAC is a Carcinogen

- Use Appropriate Experts. The determination of whether a TAC is carcinogenic is important in assessing its potential health impacts. While the regulation notes that the National Toxicology Program is an expert source for that determination, it does not list other important experts, such as the IARC. In addition, the District is shown as having the authority to determine whether a TAC should be considered a carcinogen, given criteria listed in sections 2.1.3 and 2.2. Because the science of toxicology requires experts to interpret critical studies and render a judgement, it is recommended that the District describe the expertise it would engage to apply the above criteria and render a judgement on carcinogenicity of compounds.

Section 3: Cancer Risk Benchmark Determination Methodology

- Use Range of Acceptable Risk. The approach to establishing a BAC based on a unit risk estimate is a common practice. However, the selection of a one-in-a-million risk target is a risk policy decision that bears revisiting. EPA uses a risk range of 1×10^{-4} to 1×10^{-6} in its Benzene NESHAP program, for example, and considers other important factors such as population risk and economic factors to arrive at a level that provides an ample margin of safety for resident while not overburdening industry. Using a range of risk to determine the appropriate level on a case-by-case basis is an effective way of ensuring environmental risk is managed and human health is protected, while considering realistic exposure scenarios and economic impacts.

Section 4 Chronic Noncancer Benchmark Determination Methodology

- Extrapolation of BAC_{NC} from Oral Values. Equating the RfC to the BAC is a conservative approach, but realistic and appropriate. The extrapolation of the RfD would be a common next step where an air value is not available, albeit conservative. Although the regulation acknowledges that if data exist to show that the route-to-

route (oral to inhalation) extrapolation for a compound is not appropriate, the RfD will not be used to derive a BAC, there is often not enough information to make that determination. DuPont recommends that the regulation be changed to show that only when route-to-route extrapolation CAN be shown to be appropriate that the RfD be used to derive a BAC.

- Extrapolation of BAC_{NC} from Acute Values. Use of LC50 (1 and 4 hour inhalation) and LD50 (oral) acute values is inappropriate to develop a BAC for the reason that effects under acute conditions may have no correlation with those under repeat-dose conditions. A BAC should not be established if there is no repeat-dose data available, and testing should be sought. Additionally, the huge aggregate uncertainty factors of 50,000 and 2,000,000 for 4- and 1-hour exposures, respectively, do little to support this approach other than confirm that acute values should not be used.

- Use of Default BAC_{NC}. A BAC should not be established in the absence of data. The **default value** is most likely not achievable and therefore meaningless. Data should be generated if none are available and there is a need to establish a BAC. The draft program proposes a default BAC of 0.04 ug/m3 where no data or information exists for a material. This default value does not appear to have been scientifically derived.

- Use of Appropriate Averaging Times. The procedure for setting *chronic* standards based on RfC, REL and RfD requires the determination be made using a 24-hour averaging period. However, it should be clarified that the **average** daily (24-hour) exposure would be appropriate, as opposed to the **maximum** 24-hour exposure as determined in Regulation 5.21.

Regulations 5.21: Environmental Acceptability for Toxic Air Contaminants

Section 2 Ambient Goals and Standards for Environmental Acceptability for Toxic Air Contaminants

This section is very confusing to follow. The table presented in section 2.2 presents a number of difficulties:

- It is unclear whether section 2.2.2 is supposed to represent a cumulative goal for non-carcinogens (i.e., is there a typo third column that should read “total for all TACs”?). If this is the case, only those compounds with like endpoints should be added.
- Where is the rationale for a 0.38 HQ?
- What is the rationale for a risk level of 3.8×10^{-6}?
- What is meant by the EAL risk and the EAL HQ?

The EAL is defined as an ambient concentration in section 1.2, discussed as a risk level in section 2.2, and presented as a ratio of concentrations in equations 1 and 2. Also, it is difficult to understand how a risk of 3.8×10^{-6} can be associated with and EAL when the calculation shows it is derived from a BAC, which is based on a 1×10^{-6} risk.